

57. GALLINULA GALEATA, Licht.

À l'embouchure de la rivière Jayna sur les plantes aquatiques qui flottent sur la rivière dont le courant est insensible.

58. PODICEPS DOMINICUS, Linn.

Dans les marais dans les plaines près Higuey ; on le nom *Zambulidor*.

59. HIMANTOPUS MEXICANUS.

Id.

60. QUERQUEDULA DISCORS.

Id. On le nomme *Pato*.

61. SULA FUSCA (Linn.).

Sur le bord de la mer dans les lieux déserts.

5. ON SIPHONOGNATHUS, A NEW GENUS OF FISTULARIDÆ. BY SIR JOHN RICHARDSON, F.R.S., Hon. F.R.S.E. ETC.

(Pisces, Pl. VI.)

SIPHONOGNATHUS, gen. nov.

Facies elongata, fistulosa, Aulostomatum, ex osse nasali et frontali, ossibusque palatinis, preoperculis, pterygoideis cum tympanicis productis formata. Præmaxillaria sub lateribus ossis nasalis, fere immobilia. Rictus oris mediocris, horizontalis in rostro extremi, motu solo cardinali mandibulæ subincurvæ aperiens et claudens. Maxillæ pars descendens, gracilis in disco parvulo subrotundo ad angulum oris expansa. Labia præmaxillaria et mandibularia arcta, super ossa propria replicata : priora ex utroque latere ante os nasali approximantia coalescentiaque et filamentum parvulum, impar, terminale, gracile præ ore instar proboscidis dependens, efficientia.

Foramina narium utrinque bina in acie faciei ad oculum approximata : apertura anterior, operculata vix oculo nudo discernenda, posteriori hianti nec marginatæ vicina. Dentes omnino nulli. Pharynx angusta, lævis. Cranium nec cristatum nec spinosum. Apertura branchialis obliqua, infra antrorsum tendens. Ossa branchiostega quatuor utrinque, gracilia. Branchiæ quatuor. Vertebræ costiferæ 29-30 circiter. Costæ breves, graciles. (Vertebræ caudales non numeratæ.) Anus pone medium.

Squamæ cyclodei læves, ovales, in tempora, genas et occiput procurrentes ; vultus esquamosus, lævis. Forma corporis elongata, subcylindrica ; caudæ pyramidata.

Pinnae ventrales nullæ. Pinna caudæ cordato-lanceolata, acuminata. Pinnae pectoris radiis paucis apicibus simplicibus,

planis non dilatatis. Radii anteriores pinnae dorsi, elastici, non pungentes, nec tamen articulos ostendentes. Pinnae anterioris primus eodem modo subspinosus. Radii omnes pinnarum simplices membrana tenui connexi.

Intestina simplex, sine versura rectè in anum tendens; dilatatio ventriculi parva. Cæca pylorica nulla nobis detecta. Vesica pneumatica ampla.

SIPHONOGNATHUS ARGYROPHANES.

In general form this fish approaches *Aulostoma*, the structure of the head and the tubular elongation of the palate and os hyoides being similar. The body is less compressed, being roundish, but yet with somewhat flattened sides, and a slight tapering towards the anus. The compression increases in the tapering tail. As in *Aulostoma*, the great length of head is due to the prolongations of the prefrontals, palatines, vomer, nasal, pterygoids, tympanics and hyoid bones, constituting a tube terminated by the horizontal opening of the mouth. The premaxillaries form the upper border of the mouth, and have little or no motion. They conceal the slender limb of the maxillary, but the irregularly triangular or small suborbicular plate of the latter protects the corner of the mouth. Equal in length to the maxillaries, the mandible is articulated to the extremities of the tympanics, and is slightly curved, producing a lateral gaping when the mouth is closed. Both it and the premaxillaries are edged by narrow lips which fold back on the limbs of their respective bones. At the extremity of the snout the premaxillary lips unite to form a fine awl-shaped proboscis-like barbel, which hangs down before the mouth. No teeth whatever could be discovered in the jaws or in the tubular mouth,—not even in the pharynx, which is narrow. Form of the head a slender four-sided obelisk, the space between the eyes being occupied by the forked mid-frontal into which the nasal is dovetailed. The latter as it runs forwards is feebly convex, and shows a smooth and scarcely prominent medial line, which terminates in the slightly swelling extremity of the bone and of the snout. Under each edge of the nasal, the long slender premaxillary appears as already mentioned. On the sides, the facial tube is completed by dark brown membrane, and on the ventral surface also a membrane stretches from the interopercula and tympanics of one side to those of the other, being supported on the mesial line, interiorly by a very slender lingual bone, which is neither prominent nor covered with flesh so as to form a tongue. Continuous with this under-surface of the mouth follows the branchiostegous membrane, whose deeply crescentic distal edge makes no flap at the isthmus to which it is attached. Four slender, moderately long, elastic branchiostegals support the membrane on each side. One specimen, it may be noticed, has only three branchiostegals on the right side. The gill-plate is connected to the nuchal region by scaly membrane, and terminates in a small flexible strap-shaped apex, above which only a small corner of the gill-opening appears, nine-tenths of the opening being below it.

No bony crests or spinous points exist on the cranium. The nostrils are on the edge of the head, close before the eye, the hinder one being an open pore, not above a line from the orbit, and the other is situated a quarter of an inch before it in a pulpy membrane, and being closed by a flap is not very perceptible. The space between each pair is of course equal to the breadth of the head in that region.

Scales cycloid, oval, most of them oblique, or unequal at the base, of moderate size and delicate texture, showing very fine concentric lines of structure, and from five to fifteen faint basal grooves. Scaly integument covers the upper half of the operculum, and also a rectangular space bounded anteriorly by the vertical limb of the preoperculum and the eye. On the top of the head the scales end by a crescentic line, whose ends touch the angles at the eye. The facial part of the head is clothed with scaleless integument, and there are many pores and mucous canals extending along the under edge of the prefrontal. A soft tubular ring supplies the place of suborbital bones, and the small preorbital scale bone is almost membranous, but becomes rough in drying, from the number of mucous canals which run through it. Between the gill opening and the caudal fin, there are 102 scales in a longitudinal row, six rows above the lateral line, and nine below it. The lateral line is formed by a row of small pores, each placed on the tip of a small scale, of whose disk little appears, because of the overlapping of the adjoining scales above and below. A taper-pointed scale terminates the scaly integument on the base of the caudal on each side.

Fin-rays.—Br. 4—4 ; D. 23|23, last two approximated at the base ; A. 2|13, last two approximated at the base ; C. 17 ; P. 10 ; V. 0. Dorsal commencing over the bones of the pectorals and just behind the tips of the gill-covers. It runs considerably past the anus, and some way further than the anal, its outline being even, though rising slightly in its course. Its rays are simple and unbranched like those of the other fins (except the caudal), and half of them are without visible joints, elastic at the base and tapering with flexible points. The anal commencing near the anus does not reach so far down the tail as the dorsal. It is composed of similar rays, and in the anterior two the joints are obsolete. The caudal, semilanceolate at the base, tapers to a slender, very acute point. Its rays are sparingly divided at the tips. Pectorals supported by ten simple rays with flattened but not dilated tips. No ventrals.

The intestines of the smaller specimen were examined, but not satisfactorily, as they had received injury, particularly the air-bladder, from a glass rod that had been thrust down the throat of the fish. The alimentary canal is quite straight and simple, with a slight widening below the œsophagus, but no defined stomach. No pyloric cæca were detected. The inside of the gut was thickly lined by a fine, flocculent mucus-like matter, and on scraping it away a multitude of longitudinal striæ were seen extending along the inner membrane. The liver, partly perished, was on the right side, and did not descend far. Air-bladder torn, so that its size and form

could not be ascertained. It appeared to have been large, and its coats to have been soft, fibrous, and nacre, and though thick, very readily torn. The melt was enclosed in a delicate capsule with a long seminal duct.

Under the lateral line there is a bright silvery stripe extending the whole length of the fish, and above it a stripe of equal breadth of a brownish-purple colour. This stripe reaches the tip of the caudal in one direction, and in the other passes over the upper part of the gill-cover, along the sides of the head to the mouth. Above, the back is of a lighter brown, and along the base of the caudal there is a purplish-black line. These colours are described as they exist after two or three years of maceration in spirits, and they have doubtless undergone alteration since the fish was taken.

Science is indebted for this novel and highly interesting form of fish to the late Captain Sir Everard Home, who never lost an opportunity of adding to our Natural History collections. He obtained it in King George's Sound. Some half-digested pieces of fish were found in the mouth, but nothing except mucus in the intestines.

Dimensions.

	Inches.
Length from tip of the snout to extremity of caudal, exclusive of rostral barbel.	16·50
—— from tip of the snout to tip of the gill-cover.	4·80
—— from tip of the snout to fore-edge of the orbit	3·00
—— from tip of the snout to anus	10·00
Distance between the orbits.	0·38
Length of diameter of the eye	0·45
—— of rostral barbel	0·62
—— from posterior angle of the eye to the tip of the gill-cover.	1·43
—— of the opening of the mouth	1·10
Height of the head behind the preoperculum.	0·65
Greatest breadth of shoulders or nape	0·70
Height of body behind the pectorals	1·00
Length of naked space between dorsal and caudal	2·00
—— of caudal fin.	2·50
—— of attachment of anal fin.	1·80
—— of pectorals	0·95
Height of posterior dorsal rays	0·80